

CLAIMS

We claim:

1. A universal accessory-mounting assembly for supporting an accessory at a distance from a base structure to which the universal accessory-mounting assembly may be attached, comprising:
 - (a) one or more support components each of which has a base end and an accessory-support end;
 - (b) wherein each support component has its accessory-support end engaged directly or indirectly to accessory-support ends of every other support component;
 - (c) two or more independent base-attachment structures each of which is engaged to a base end of one of said support components;
 - (d) wherein each of said base-attachment structures comprises means for securing it to the base structure;
 - (e) wherein one or more of said base-attachment structures are biaxially pivotally engaged to said base end of one of said support component(s) by a ball-and-socket joint;
 - (f) accessory-attachment structure to which the accessory may be mounted; and
 - (g) wherein said accessory-attachment structure is engaged directly or indirectly to and/or comprises one or more of said accessory-support ends of said support components.
2. The universal accessory-mounting assembly of Claim 1, wherein:
 - (a) one or less of said base-attachment structures are engaged to a base end of a support component in a manner other than being biaxially pivotally engaged through a ball-and-socket joint.
3. The universal accessory-mounting assembly of Claim 2, wherein:
 - (a) said universal accessory-mounting assembly comprises two or more support components;

- (b) one or more of said support components is/are engaged directly or indirectly to other support component in such a manner that it/they are at least selectively movable relative to said other support components.

4. The universal accessory-mounting assembly of Claim 3, wherein:

- (a) one or more of said support components is/are uniaxially pivotally engaged directly or indirectly to all others of said support components and its/their orientations is/are, therefore, uniaxially pivotally adjustable relative to all others of said support components.

5. The universal accessory-mounting assembly of Claim 4, wherein:

- (a) every one of said base-attachment structures is biaxially pivotally engaged to a base end of one of said support components through a ball-and-socket joint.

6. The universal accessory-mounting assembly of Claim 5, wherein:

- (a) for each support component, which is directly or indirectly uniaxially pivotally engaged to other support components, said universal accessory-mounting assembly includes structure which can be utilized to selectively secure its orientation relative to all others of said support components.

7. The universal accessory-mounting assembly of Claim 6, wherein:

- (a) every one of said support components is directly or indirectly uniaxially pivotally engaged to all others of said support components.

8. The universal accessory-mounting assembly of Claim 7, wherein:

- (a) each axis about which each support component is pivotal relative to other support components is disposed at an angle to all other axes about which all other support components are pivotal.

9. The universal accessory-mounting assembly of Claim 8, wherein:

- (a) each of said base attachment structures comprises a mounting pad which has a flat mounting-face which is firmly pressed against the base structure when said universal accessory-mounting assembly is mounted to the base structure.

10. The universal accessory-mounting assembly of Claim 9, wherein:

- (a) said universal accessory-mounting assembly comprises three support components and three base-attachment structures.

11. The universal accessory-mounting assembly of Claim 10, wherein:

- (a) each of said support components is a relatively long, thin, member and is of unitary construction.

12. The universal accessory-mounting assembly of Claim 2, wherein:

- (a) every one of said base-attachment structures is biaxially pivotally engaged to a base end of one of said support components through a ball-and-socket joint.

13. The universal accessory-mounting assembly of Claim 12, wherein:

- (a) said universal accessory-mounting assembly comprises three support components and three base-attachment structures.

14. The universal accessory-mounting assembly of Claim 13, wherein:

- (a) one or more of said support components is/are engaged directly or indirectly to other support component in such a manner that it/they are at least selectively movable relative to said other support components.

15. The universal accessory-mounting assembly of Claim 14, wherein:

- (a) every one of said support components is directly or indirectly uniaxially pivotally engaged to all others of said support components.

16. The universal accessory-mounting assembly of Claim 1, wherein:

- (a) said universal accessory-mounting assembly comprises three support components and three base-attachment structures.

17. The universal accessory-mounting assembly of Claim 2, wherein:

- (a) said universal accessory-mounting assembly comprises three support components and three base-attachment structures.

18. A vehicle, comprising:

- (a) one or more frame structures to which a large percentage of other components of said vehicle are directly or indirectly engaged and from which said components which are directly or indirectly engaged thereto derive support;
- (b) a suspension system which is engaged to said one or more frame structures of said vehicle and which supports said one or more frame structures of said vehicle above the ground and provides said vehicle with a relatively low resistance to movement along the ground;
- (c) one or more body structures, which are engaged to and supported by said one or more frame structures and within or upon which passengers and/or cargo may reside;

- (d) a universal accessory-mounting assembly that is mounted to a base structure which is one of said body structures of said vehicle;
- (h) wherein said universal accessory-mounting assembly comprises one or more support components each of which has a base end and an accessory-support end;
- (i) wherein each support component has its accessory-support end engaged directly or indirectly to accessory-support ends of every other support component;
- (j) wherein said universal accessory-mounting assembly comprises two or more independent base-attachment structures each of which is engaged to a base end of one of said support components and each of which is also attached to said vehicle body structure which is said base structure;
- (k) wherein one or more of said base-attachment structures are biaxially pivotally engaged to said base end of one of said support component(s) by a ball-and-socket joint;
- (l) wherein said universal accessory-mounting assembly further comprises accessory-attachment structure to which an accessory is mounted; and
- (m) wherein said accessory-attachment structure is engaged directly or indirectly to and/or comprises one or more of said accessory-support ends of said support components.

19. The vehicle of Claim 18, wherein:

- (a) one or less of said base-attachment structures are engaged to a base end of a support component in a manner other than being biaxially pivotally engaged through a ball-and-socket joint.

20. The vehicle of Claim 19, wherein:

- (a) said universal accessory-mounting assembly comprises two or more support components;
- (b) one or more of said support components is/are engaged directly or indirectly to other support component in such a manner that it/they are at least selectively movable relative to said other support components.

21. The vehicle of Claim 20, wherein:

- (a) one or more of said support components is/are uniaxially pivotally engaged directly or indirectly to all others of said support components and its/their orientations is/are, therefore, uniaxially pivotally adjustable relative to all others of said support components.

22. The vehicle of Claim 21, wherein:

- (a) every one of said base-attachment structures is biaxially pivotally engaged to a base end of one of said support components through a ball-and-socket joint.

23. The vehicle of Claim 22, wherein:

- (a) for each support component, which is directly or indirectly uniaxially pivotally engaged to other support components, said universal accessory-mounting assembly includes structure which can be utilized to selectively secure its orientation relative to all others of said support components.

24. The vehicle of Claim 23, wherein:

- (a) every one of said support components is directly or indirectly uniaxially pivotally engaged to all others of said support components.

25. The vehicle of Claim 24, wherein:

- (a) each axis about which each support component is pivotal relative to other support components is disposed at an angle to all other axes about which all other support components are pivotal.

26. The vehicle of Claim 25, wherein:

- (a) each of said base attachment structures comprises a mounting pad which has a flat mounting-face which is firmly pressed against said body structure of said vehicle that is said base structure.

27. The vehicle of Claim 26, wherein:

- (a) said universal accessory-mounting assembly comprises three support components and three base-attachment structures.

28. The vehicle of Claim 27, wherein:

- (a) each of said support components is a relatively long, thin, member and is of unitary construction.

29. The vehicle of Claim 19, wherein:

- (a) every one of said base-attachment structures is biaxially pivotally engaged to a base end of one of said support components through a ball-and-socket joint..

30. The vehicle of Claim 29, wherein:

- (a) said universal accessory-mounting assembly comprises three support components and three base-attachment structures.

31. The vehicle of Claim 30, wherein:

- (a) one or more of said support components is/are engaged directly or indirectly to other support component in such a manner that it/they are at least selectively movable relative to said other support components.

32. The vehicle of Claim 31, wherein:

- (a) every one of said support components is directly or indirectly uniaxially pivotally engaged to all others of said support components.

33. The vehicle of Claim 18, wherein:

- (a) said universal accessory-mounting assembly comprises three support components and three base-attachment structures.

34. The vehicle of Claim 19, wherein:

- (a) said universal accessory-mounting assembly comprises three support components and three base-attachment structures.

35. The vehicle of Claim 18, wherein:

- (a) said accessory that is mounted to said universal accessory-mounting assembly is selected from a group consisting of lights, antennas, and mirrors.

36. The vehicle of Claim 35, wherein:

- (a) said body structures which said vehicle comprises include a cab and an engine compartment hood disposed in front of said cab;
- (b) said base structure to which said universal accessory-mounting assembly is mounted is said engine compartment hood;
- (c) said universal accessory-mounting assembly is mounted at a forward end of said engine compartment hood; and
- (d) said accessory that is mounted to said universal accessory-mounting assembly is a mirror a reflecting surface of which is directed at least partially toward said cab such that a driver

of said vehicle can view images of areas in front of, beside, or behind, said vehicle in said reflecting surface of said mirror.

37. The vehicle of Claim 19, wherein:

- (a) said accessory that is mounted to said universal accessory-mounting assembly is selected from a group consisting of lights, antennas, and mirrors.

38. The vehicle of Claim 37, wherein:

- (a) said body structures which said vehicle comprises include a cab and an engine compartment hood disposed in front of said cab;
- (b) said base structure to which said universal accessory-mounting assembly is mounted is said engine compartment hood;
- (c) said universal accessory-mounting assembly is mounted at a forward end of said engine compartment hood; and
- (d) said accessory that is mounted to said universal accessory-mounting assembly is a mirror a reflecting surface of which is directed at least partially toward said cab such that a driver of said vehicle can view images of areas in front of, beside, or behind, said vehicle in said reflecting surface of said mirror.

39. The vehicle of Claim 30, wherein:

- (a) said accessory that is mounted to said universal accessory-mounting assembly is selected from a group consisting of lights, antennas, and mirrors.

40. The vehicle of Claim 39, wherein:

- (a) said body structures which said vehicle comprises include a cab and an engine compartment hood disposed in front of said cab;

- (b) said base structure to which said universal accessory-mounting assembly is mounted is said engine compartment hood;
- (c) said universal accessory-mounting assembly is mounted at a forward end of said engine compartment hood; and
- (d) said accessory that is mounted to said universal accessory-mounting assembly is a mirror a reflecting surface of which is directed at least partially toward said cab such that a driver of said vehicle can view images of areas in front of, beside, or behind, said vehicle in said reflecting surface of said mirror.